MEMOIRS of a CORPORATION

1850 1950

Weaving a Century

CHAPTER VII

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PACIFIC MILLS

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MEMOIRS *of a* CORPORATION

The Story of Mary and Mack and Pacific Mills

with the editorial assistance of Josef Berger

PACIFIC MILLS 1850–1950

Weaving a Century

PACIFIC MILLS

Executive Offices: 140 Federal Street

BOSTON, MASSACHUSETTS

Andover Review
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DEDICATION

To the memory of those gallant workers of Pacific Mills who died in service of their country on the battlefields of four wars, this series of booklets is reverently dedicated . . .

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PACIFIC MILLS

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This is the seventh of a series of booklets being published by Pacific Mills at monthly intervals through the current year in commemoration of the founding of the company one hundred years ago.

If you did not receive the preceding chapters, Pacific Mills will be glad to send them to you on request. Write to Pacific Mills, 140 Federal Street, Boston 10, Mass.

VII

New Yarns for Old

(Mack, fourth-generation employee of Pacific Mills, and his wife, Mary, are to make a tour of all the plants of the hundred-year-old firm where his forefathers have worked from the early days. They begin with the mill at Lawrence, Massachusetts, going through the many departments, visiting with old-timers, and comparing past and present. Some of the things they saw and heard are related below.)

A veteran loom-fixer was once asked why a man always refers to a machine as "she." He said:

"Well, now, you take this loom. I make a fuss over her, I overhaul her, I get her all shined up in apple-pie order. And so long as I stand here and keep my eyes on her, she works like a charm. But just let me turn my back and pay attention to another one, and durned if she don't start raising hell! That's why I call 'em 'she'."

But on the whole, modern textile machines are very well behaved. Competitive clothmaking has been geared up in recent times to an unprecedented pace. Only the most efficient and ingeniously designed machinery is able to hit the modern stride. Much of it is, of necessity, very complex, not only quicker than the hand but, to all except a relatively few experts, quicker than the eye as well.

To the uninitiated, the scene inside the great Pacific Mills Worsted Division in Lawrence is a vast, bewildering array of intricate, up-to-the-minute mechanisms, all doing things in mysterious ways to make fabrics out of wool, make them quickly and, above all, make them well.

The mill at Lawrence makes both worsteds and woolens. Worsteds are closely woven, hard-finish fabrics with little or no nap, in which only the long fibers of the wool are used. Woolens are soft, raised fabrics, rather loosely woven of yarns that include both long and short fibers. Suitings, coatings and dress goods in wide variety of weave and finish are made of these two general types of fabric.

. . .

Mary and Mack, busy in their respective departments of the mill day after day, had never had occasion to see what was going on in the rest of the great humming establishment at Lawrence. But if you have read earlier installments of this series, you remember they were to be given just such an opportunity.

At the beginning of their tour of the mill they were shown the big bales of "grease wool" as it is called when it comes in and is stacked in the "wool store" in the basement — thousands of three-hundred-pound packages brought to Pacific from the West, from Australia, Buenos Aires, Montevideo and many other parts of the world.

The overseer of the "store" knew wools the way an old master would know the colors on his pallet and was quite as particular. He talked wool, thought wool, lived wool in his waking hours.

"Most people think of wool as a kind of hair," he said. "It isn't. Wool fibers are covered with little scales that hair doesn't have. You can't see them, but they're important because they interlock when they are made into yarn, so that we can work them into a compact fabric."

. . .

"Grease wool" loses from twenty-five to seventy-five per cent of its weight when the fat, burrs, sand and other souvenirs a sheep picks up are washed out of it. The grease is saved and purified into lanolin, which is widely used in cosmetics.

The clean wool is carded — brushed out to separate the tangled fibers — and then, for worsted yarn, combed to remove the short fibers.

Watching the comb, a very involved mechanism that performed its delicate chore at whirlwind speed and delivered the wool in a thick, soft strand, Mary remarked:

"What I don't understand is how a human brain ever thought that up!"

"*A* human brain didn't," the overseer told her. "No man could have invented that comb in one lifetime, I don't care who you name — Einstein or even the Quiz Kids. One man started it, an English preacher named Edmund Cartwright, about one hundred and fifty years ago. But a lot of other brains have gone into it since. Pacific Mills was the first company in America to use the worsted comb. Brought it over from England in 1853."

The wool, now in the thick, loose strand, is drawn out through a series of rollers, thinner and thinner, preparatory to spinning,

which is simply drawing it out still further, putting a twist into it and winding it as yarn on bobbins.

The warp or lengthwise threads of the cloth, before going to the loom, are arranged as a sheet of threads and rewound on a giant spool to the number called for by the width of the cloth and strengthened by a bath in a starch mixture.

. . .

To a visitor, the weave room is the busiest, noisiest, most exciting part of the mill. Here the "sidewalk superintendent" is in seventh heaven.

Hustling as if in a breathless race with time, and with each other, hundreds of looms clatter and bang away. They are like living, thinking creatures. As one looks on, it isn't hard to imagine the presence at each of them of an invisible weaver, working like fury, kicking the shuttle across so fast the eye can scarcely follow it, beating up each new thread against the cloth, manipulating the harnesses up and down in quick succession and timing everything to the split second.

"The same thing you see here was being done by hand thousands of years ago," the overseer said. "Even the power loom goes back to 1775. That same British preacher, Cartwright, invented it some years before he made the comb."

The "gray cloth" that comes off the loom — actually an off-white to deep cream — is not at all of the texture or "handle" of a finished worsted. It is flat, thin and quite unprepossessing as it goes to the inspectors who mark places where there are

knots, loose threads or other imperfections, then to the menders who correct these, and finally into "gray storage."

The process known as "fulling" — treatment with heat and chemicals while pressure is applied from rollers — transforms the thready gray cloth into a compact fabric. Other machines "set" it at the proper width, fix the warp and weft threads evenly in relation to each other so the cloth will not pucker, and clean out any remaining impurities that might show up in the dyeing.

. . .

"Color used to be a bigger headache than it is now," the head of the dyehouse told Mary and Mack. "In the past eighty years hundreds of colors have been developed in textile dyes. Most of them are made from coal tar.

"I've heard a story that back in the eighties there was a fad in red skirts. No woman would be seen in any other color. But when a fashion is overdone, it sometimes ends as suddenly as it started. Well, bright red skirts had been the rage for some time and Pacific was still going strong on reds.

"The dyehouse wasn't run as strictly according to system as it is now. One day a color-blind apprentice boy dumped the wrong dye into a kettle where a batch of red was supposed to go. Before the slip-up was discovered the mill had quite a lot of bright green cloth on its hands, and not a bad green at that.

"The company decided to try marketing the stuff. It was something new. Another fad caught hold. Then they began dyeing greens like fury."

A number of finishing processes follow the dyeing, to raise a

nap on some fabrics, to shear off fibers that stick up too far on others, to bring out luster and to give the cloth a final flattening-out and pressing.

. . .

But there is more to Pacific Mills than the spindles and looms and other gadgets Mary and Mack looked at. There are people, a friendly, busy spirit and there are memories.

There are people in Lawrence today like Charlie Batchelder, for example, who began work for Pacific in 1904 as a junior payroll clerk, and who can remember when the mill office was a far cry from the spacious, modern quarters of today.

While bookkeepers and accountants by the dozen now sit at shiny desks under fluorescent lighting and depend on machines to do arithmetic, print out bills by the push-button method and all but think for them, Charlie can remember when the entire office force consisted of nine persons, sitting on high stools and doing all the figuring by hand under gas lights.

Up until 1886 the cashier occupied a mere cubbyhole. Then a law was passed requiring corporations to pay their employees weekly instead of biweekly. This called for more paper work. And so, as reported in the local newspaper, "the commodious upper office was built, which is generally considered to be one of the finest offices in the country."

There the mighty Walter Parker, mill agent and absolute monarch over Pacific in the early years of this century, was enthroned at his roll-top desk. Although those who worked for Parker are still talking about how tough he was, Irving South-

worth, who succeeded him in 1924, reveals another side of this stern-visaged, bearded old ruler of Pacific Mills.

For one thing, Parker was so grateful to Tufts College for giving him an honorary degree that he donated $50,000, with no strings attached.

"But you could have got a better personal slant on him if you had known Miss Annie, his secretary," Mr. Southworth recalled. "Miss Annie — her last name was Hutchinson but nobody called her that — was a tall, angular spinster from away down-East in Maine. She was the only person in the mill who wasn't afraid of Walter Parker. Not only that; she bossed him around in a way that made the rest of us gape open-mouthed, as if we were witnessing blasphemy.

. . .

"One day young Bobby, the office boy, came to work limping painfully. Miss Annie, who considered him her pet, noticed his shoes were down at heel.

" 'Your arches are fallen,' she said. 'Let's go in and talk to Mr. Parker. He knows what to do for that.'

"She dragged the scared boy into the inner sanctum.

" 'Mr. Parker, Bobby has the same trouble you have. What's the name of the firm that built up those shoes for you?'

"The Great Man, with unconcealed annoyance, said, 'I don't remember. Besides, these shoes cost me $15, which is more than he can afford. Furthermore, I'm very busy, Miss Annie.'

" 'So am I,' she answered crisply. 'This is a matter of health. Bobby can be crippled for life if it isn't attended to. Will you

Parker, looking like a schoolboy who has been threatened with a switching, took off his shoe.

please take off one of your shoes and let me see the name stamped inside?'

"Parker, looking like a schoolboy who has been threatened with a switching, took off his shoe. Miss Annie got the name, thanked him and led Bobby out.

"Later that day she remarked to Parker, 'Not many boys would show up for work at all with their feet hurting the way Bobby's are. Too bad he can't afford $15 for the kind of shoes he ought to have.'

" 'I couldn't understand why you were wasting my time about it,' Parker grumbled.

"But Miss Annie, who never let him get away with the last word, said, 'P'raps you will when you've thought it over.'

"Parker never mentioned it to Miss Annie again. But next day an order went to the cashier to include a $15 bonus in Bobby's pay envelope for that week."

. . .

In the powerhouse of the Lawrence plant, too, things used to be different. In the beginning Pacific got all its power from water wheels turned by the Merrimack. As the business grew, its needs went beyond the number of "mill powers" which the Essex Company could furnish.

Pacific ordered a Corliss engine for the Lower Mill, one of the biggest such machines ever built up to that time. The management was very proud of it. In 1876, before it was installed, one of the gears was placed on exhibit in Philadelphia. That one wheel was thirty feet in diameter, with a thirty-inch face!

In the beginning there was quite a little trouble with the engine. She was cranky, broke down often and required so much attention that the powerhouse found itself shorthanded. One of the men nicknamed her Venus de Milo — not enough hands and too much bust. But they managed to make her go, and after a time the engine crew became quite attached to her.

So fast was the mechanical world moving in those times, however, that in less than ten years Venus had become obsolete. She was replaced by two tandem compound engines, and these

gave way in turn to later apparatus hooked up to electric generators.

Today Pacific uses a battery of turbines, "so big," the engineer told Mary and Mack, "you could drive a Ford truck through the exhaust."

But the river has never grown obsolete. While power machinery comes and goes, the Merrimack rolls on to the great dam, plunges through the canals and turns wheels for Pacific Mills as tirelessly as it did a century ago. The company still meets a large part of its power need from the mighty stream that gave it birth.

. . .

Once the river rebelled. The winter of 1936 brought deep snows over New England. Then, while the Merrimack was piled high with ice, a warm spell brought down heavy rains. Up where the headwaters gather in the North Country, an early March thaw is usually checked by more freeze. This time it didn't happen. The ice broke, rains kept coming and the Merrimack, swollen to a huge head, came rolling down in a fury on the city of Lawrence.

Over the stone crest of the dam it roared, higher and higher, until by the evening of March 20, at peak, it had risen thirty-four feet above the normal summer level. Great blocks of ice, some sixty feet across, shattered against the dam or slid over and raced madly down the river bed.

Into the mills, attacking machinery and bringing in sand and silt, went the berserk Merrimack through the night of March 20.

Stock in process and finished goods were soaked, went floating out of shattered windows. Special oils in switches and transformers were washed out.

Up and up went the water in the mill to within three feet of the second-story floor. The weight of the sand that was brought in, to a depth of six feet, caved in some of the equipment and threatened the buildings themselves.

All night long Pacific men fought the raiding river. Where they could be reached, motors and expensive machines too heavy to move were packed in grease. The engineering crew went thirty-six hours without sleep.

. . .

The adventure of two Irishmen of the machine shop turned out to be a saga of the flood. Bob and Tom were inseparable. Both men were first-rate machinists when sober, which was all the time except from Saturday night to Monday morning.

They were rugged individualists, at times more so than Joe, the master mechanic, liked. When Joe installed a time clock, some years ago, for the express purpose of registering the hours of Monday morning when Bob and Tom showed up for work, they declared it was rank regimentation.

Shortly thereafter the time clock was mysteriously spirited out of the shop and dumped in the canal. Joe fished it up and announced that anyone caught mistreating the instrument would lose his job and furthermore, he, Joe, would throw the offending party bodily into the canal. Bob and Tom grumbled, but the clock remained.

When the flood came, the auxiliary equipment of Number Two Turbine, which was located in a depression in the floor, was under ten feet of water. Bob and Tom worked like Trojans on Number Two all that Saturday. But at nightfall they needed "a bit of a booster." Anyhow, that was the way it started.

Three hours later they came back, arm in arm, singing "Mother Machree." They were higher than the river. And they had brought back with them a new, unopened bottle of whiskey.

Master Mechanic Joe was disgusted. He knew they would be good for no more work that night. As they began fumbling around with the turbine, he quietly picked up the bottle that Bob had set on the concrete near the edge of the water-filled pit, hid it behind an instrument board, then came back and dropped a wrench into the water.

Bob and Tom started, turned at the splash and a look of horror came over their faces.

"It's our whiskey ye've knocked into the water, Joe!"

"Sorry, boys," Joe said. "I didn't see it sitting there." And he left them.

The moment they had none, they wanted it. Soon they were desperate. The water in the pit was well over their heads. They decided to dive for it. Bob took off his clothes, and into the icy pool he went. He came up shivering and blowing like a whale. No whiskey. Then Tom tried it. The bath sobered them just enough to sharpen their longing for that nice full bottle.

Again and again they dove. Other men gathered around to watch. Then Tom, making one more try, got his foot caught in

some debris and didn't come up. After a long minute Bob went to his rescue, bringing him out half-drowned.

They decided on one more effort — to bale out the whole pit with buckets. It was a terrific job, but no challenge was too great for them now. Through the night they baled away.

By nine o'clock Sunday morning they had all but six inches of water out of the pit — which was exactly what the master mechanic wanted. Then they went over every inch of the bottom. Still no whiskey!

Again and again they dove for the whiskey . . . other men gathered around to watch.

The two Irishmen were nonplussed and not a little awed. Sure, it was the "little men" themselves, Bob whispered to Tom, who were after keeping them away from the bottle that night! Tom agreed. "Niver will I be taking of another drink, Bob, and when I do, so help me, I hope it'll be on the day of me wake!"

When they reported the phenomenon to Joe that morning, he was most sympathetic, said it certainly must have been the "little men," and in fatherly tone advised them to lay off the stuff. For months afterward, Bob and Tom touched nary a drop.

. . .

There are memories in Lawrence, too, of the great cotton manufacturing industry that is gone now, shifted to the South.

Little more than a decade ago, Pacific's New England cotton business, in Lawrence and Dover, was keeping more than a quarter of a million spindles awhirl, seven thousand looms weaving, and a dozen printing machines rolling out millions of yards of "Ramapo," "Slater," "Lyondale," "Piedmont" and other fabrics of well-known trade names.

In the lean days of the late twenties these northern cotton mills made a desperate struggle to stay out of the red. Most divisions worried through by small margins. Then came the critical days of the early thirties, bringing losses nearly all down the line.

In 1932 the cotton mill and print works ground to a full stop, and the management debated whether to keep on rattling the bones of those overgrown skeletons or liquidate them completely.

It was a difficult decision. The works were costing money in idleness. They would cost still more to run. And yet, as to the

cotton industry's future, long term, Pacific Mills had no fears. The decision was to hang on to the cotton properties.

In the light of later trends, that decision proved a mistake. When the present management took over in 1940, one of its first moves was to get out of cotton in the north.

. . .

Nevertheless, during its long career Pacific's Lawrence cotton mill had made a major contribution in giving employment to thousands of people through many decades, supplying a large part of the nation's need for printed fabrics and developing new techniques.

In the years just prior to the move to the South, the company's line included thirty-three varieties of printed cotton cloth. Fifteen styles were made in quantities of more than fifty thousand pieces each, per year, a "piece" being one hundred and twenty yards. Most important of these were percales, but the list also included crepes, batistes, flannels, twills and moussettes.

As between cottons on the one hand and worsteds and woolens on the other, the company's dollar sales were about equal, but of course the yardage of cottons was much greater. For the year 1915, for example, cotton sales ran to $9,500,000, as against $9,200,000 for wool fabrics; but the cotton volume amounted to 138,000,000 yards, wool to 25,000,000.

. . .

To widen the field for its new print works, Pacific Mills made several purchases of other companies. One of the most interesting of these deals was the acquisition in 1915 of the printing

business of the Merrimack Manufacturing Company of Lowell. It included Merrimack's printing machines, together with copper rollers and dyestuffs, but, more important, it eliminated Merrimack's competition. Both Pacific and Merrimack were selling at that time through Lawrence and Company, and many lines were parallel.

The printing business Pacific acquired by the Merrimack purchase was the oldest in the country. Merrimack began to manufacture in 1824. Its first cloth was so coarsely woven the buyers complained they could shoot peas through it.

The mill improved on that, but had trouble printing designs. The British had found a way to print on cloth from engraved cylinders, but the secret was being closely guarded. Merrimack tried it, failed and found it necessary to import cylinders from England.

Then Kirk Boott, treasurer of Merrimack, went to England, hired a few calico printers and brought them over. After their arrival they learned he had driven a hard bargain. They demanded better terms and, on being refused, got their families together and left Lowell in a wagon train, with a brass band playing. He hurried after them and gave them what they wanted.

The first print was in a design of white spots on a ground of madder. But when it was washed the spots disappeared, cloth and all, leaving little holes. After further experiment the mill found that indigo blue would withstand washing.

In the next hundred years many a trick was developed in the difficult trade of printing on cloth. When young Bob Reoch,

superintendent of the printing division of the mill at Dover, was called to Lawrence to take charge of the print works in 1912, he knew most of those tricks.

In his early thirties, Bob was constantly on his toes. He had to be, to keep somebody else from getting on them. For he had been singled out and boosted into the big job over the heads of several older men.

One of these latter, envious and eager to pick fault, tattled to the Boston office that under Bob's direction the print works was running up a heavy accumulation of "seconds" — defective prints that had to be sold at a discount. Further, he cited the achievement of a competing mill which had found a way — so he said — of discharging the color from a printed cloth so that defective pieces could be reprinted.

Bob investigated. It was true that the competitor had found a way to remove color. He also found, on making his own tests, that the chemicals of the erasing agent had taken out not only the color of the cloth but its strength as well. The reprints were good enough to look at, but when they were washed they fell apart. Bob took the formula as a starter, worked on it and finally came up with an eraser that left the cloth unharmed.

A perennial bottleneck of the print works was the engraving. It had to be done by hand. Bob wanted to work out a mechanical process which would eliminate part of the hand work. The idea was good, but he hadn't the specialized technique.

Nobody in the engraving department could solve the problem for him. He began to look around outside. At last he got

his man, and in no time at all the thing was accomplished. The expert engraver who gave Bob Reoch his answer so promptly was a reformed criminal who had spent much of his life in prison and a considerable part of it at the art of counterfeiting!

. . .

Once in a while the old-timers in Lawrence get together, and when this happens there's no end to the talk of the past. They remember the time Andrew Campbell, of the machine shop — he was a young feller then, full of beans — sneaked up the great chimney in the mill yard, for a look at the world. It was against the rules, but for a long time Andrew had felt an irresistible urge to make that trip. He picked a Saturday afternoon when nobody was likely to notice him.

Nobody did. Nobody paid any attention even when Andrew, paralyzed-scared and beginning to feel faint, called out weakly for help from the narrow catwalk atop the stack. He hadn't foreseen the terror that would grip him when he was perched on a twelve-foot ring two hundred and fifty feet in the air.

Now, unable to stand up for fear of getting dizzier, he prayed someone would see him and come to the rescue before he fell off — or in. As a postscript to his prayer, he asked the Lord not to let anyone fire up in the boiler room.

Still nobody noticed, nobody came. After lying on the rim, hugging the bricks, for three long hours, he managed to squirm back to the steel ladder and make his way down. Later when he confessed his trespass, Mike Clancy of the machine shop said, "Well, and ye was after gittin' the view from up there.

And how was it?"

Andrew replied, "I don't know. I forgot to look!"

. . .

A still older generation of old-timers, men who are gone now, used to gather in Lawrence and hash over "the old days" at Pacific, days of more than a lifetime ago. They talked proudly of the visit General Grant paid the mill in 1865.

They remembered, too, the clerk in the counting room, George Waterman, who embezzled $100,000 from the company and was caught in 1878 and sent to prison for twelve years.

They knew Martin McNulty, boss of the pipe shop, who couldn't read but was a wizard at his own specialty. One of the boys would have to go over every blueprint with Martin and tell him, "A tee here, and an elbow six feet further along, and after another ten feet a tap." The blueprint might go on specifying for hundreds of feet through the plant, but Martin needed his explanation only once. No matter how intricate the job, he remembered every detail, never missed.

. . .

And some of those old-timers had lived in the row of red brick "corporation boarding houses" that stood along the canal until they were razed in 1910 to make way for the Number Ten Worsted Mill. Women paid $1.00 a week for rooms there, $2.25 a week for board. Men had to pay 75 cents more for board.

In the beginning, many of the people came to Pacific from nearby farms, fifth- and sixth-generation Yankee folk. A little

later English and Irish immigrants replaced them, still later French Canadians and, finally, a mixture of others.

A census of five thousand hands in Pacific Mills in 1913 showed two-thirds foreign-born. Of these, 33 per cent were from the British Isles, 24 per cent from Canada, 13 per cent from Greece and the Near East, 8 per cent from Germany and Austria, 7 per cent from Italy, 7 per cent from Russia, Poland and Lithuania, with a scattering of Portuguese, Belgians and what not.

Today, though they are of many origins, Pacific's people in Lawrence are one hundred per cent Americans. They have worked for America, many have fought for America and all take pride in their places within a company that is itself so deeply rooted in the history and spirit of America.

Therein lies the strength of Pacific Mills.

Next month Pacific Mills will send you another installment of "Memoirs of a Corporation, Weaving a Century." It will be entitled "Chapter VIII: In the Land of Cotton."